

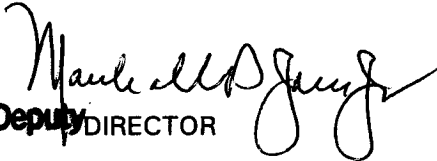


U.S. FISH AND WILDLIFE SERVICE TRANSMITTAL SHEET

PART	SUBJECT	RELEASE NUMBER
242 FW 5	Industrial Hygiene Lyme Disease Prevention	404
FOR FURTHER INFORMATION CONTACT Division of Safety, Security, and Aviation		DATE August 2, 2002

EXPLANATION OF MATERIAL TRANSMITTED:

This chapter provides information on Lyme disease and assigns responsibilities for preventing Lyme disease in occupationally exposed personnel.


Deputy DIRECTOR

FILING INSTRUCTIONS:

Remove:

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**FISH AND WILDLIFE SERVICE
OCCUPATIONAL SAFETY AND HEALTH**

Occupational Safety and Health

Part 242 Industrial Hygiene

Chapter 5 Lyme Disease Prevention

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5.1 What is the purpose of this chapter? This chapter provides information on Lyme disease and assigns responsibilities for preventing Lyme disease in all occupationally exposed personnel.

5.2 To whom does this chapter apply? This chapter applies to all employees, volunteers, and Youth Conservation Corps and Job Corps members whose duties require them to work in areas where ticks carrying Lyme disease may be present.

5.3 What are the authorities for this chapter?

A. Public Law 91–596, Section 5(a)(1) General Duty Clause.

B. 29 CFR 1960, Basic Program Elements for Federal Employee OSH Programs and Related Matters.

C. Executive Order 12196, Occupational Safety and Health Programs for Federal Employees.

D. DOI Occupational Medicine Handbook, Tab 12 E-4(a).

5.4 Who is responsible for Lyme disease prevention?

A. The Chief, Division of Safety, Security and Aviation (DSSA) is responsible for providing up-to-date information on Lyme disease prevention to the Regional Safety Managers and for using SMIS to determine the effectiveness of the Service's prevention program.

B. Regional Directors will effectively administer a Lyme disease prevention program within their Region.

C. Regional Safety Managers will provide technical advice and information to the Regional Director, project leaders/supervisors, and collateral duty safety officers. They will issue information updates to the field stations, as they are made available.

D. Project Leaders/Supervisors must ensure that all of their employees and volunteers, who are required to work in high-risk endemic areas of exposure to Lyme disease, receive awareness training on Lyme disease and are offered a Food and Drug Administration-approved vaccine, if available.

E. Employees/Volunteers must practice acceptable measures of personal protection and perform personal body checks following all work in the field if there is a potential for tick bites. They are to report any tick bite to their project leader/supervisor as soon as possible and document the tick bite in their field log.

5.5 What is Lyme disease? Lyme disease is a treatable, multi-system, inflammatory illness passed on to humans through tick bites. The most common ticks suspected of carrying the disease are the deer tick (*Ixodes dammini*), black-legged tick (*Ixodes scapularis*), and the lone star tick (*Amblyomma americanum*).

5.6 How can I be exposed to Lyme disease?

A. Ticks perch on tree leaves and limbs in order to gain a height advantage in positioning themselves to drop onto potential hosts. They also attach themselves to people or animals brushing against tall grass or shrubbery. Only after attaching to a host do they actually bite. Every tick bite does not automatically cause Lyme disease.

B. Landscaping, forestry, brush clearing, land surveying, farming, and wildlife management are activities commonly associated with increased Lyme disease exposure.

C. You should contact your State and local health authorities to obtain information about the occurrence of Lyme disease in any areas where you may be working. You can also get this information from the [Center for Disease Control](#).

5.7 What are the signs and symptoms of Lyme disease? Timely diagnosis and treatment are very important. Lyme disease occurs in three distinct stages based on the length of time from the tick bite. Stages may overlap and not everyone exhibits each phase. An infected individual may progress directly from the first stage to the third stage while someone in the third stage may show the first signs of the disease.

A. First stage. The first stage is characterized by an expanding “bulls-eye” skin rash often accompanied by flu-like symptoms, fatigue, fever, general malaise, enlarged lymph glands, muscle or joint pains, sore throat, cough, inflammation of the eyes, and swelling of the genital organs in men. The rash usually fades after 3 to 4 weeks but may recur for up to 1 year or more and is often accompanied by other symptoms and signs such as muscle or joint pain. Sometimes the rash takes the appearance of a blotchy or reddish area. Approximately 20 to 40 percent of individuals with Lyme disease never notice a rash.

B. Second stage. Within 1 to 4 months after the initial tick bite, the infected individual shows signs and symptoms such as loss of control of one or both sides of the face and/or meningitis; heart problems; and migratory pain in muscles, joints, tendons, and bones.

C. Third stage. Within 2 months to 2 years after the onset of Lyme disease, many individuals develop arthritis. The usual pattern is intermittent attacks of arthritis in the joints

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especially in the knees, elbows, ankles, wrists, hip, and jaw. The arthritis usually lasts for several months with symptom-free intervals. This arthritic stage may take years to resolve, particularly if left untreated.

5.8 How can I prevent Lyme disease? You can prevent exposure to Lyme disease by wearing appropriate clothing and repellants, checking your body for ticks, and receiving an FDA-approved vaccine, when available. When possible, avoid areas where ticks may be present.

5.9 What clothing should I wear? When in a tick-infested area, you should wear light-colored clothing consisting of long pants tucked into your socks or boots, a long-sleeve shirt, and a hat. If possible, wear clothing that ticks have trouble hanging on to such as nylon pants and rubber boots.

5.10 Should I use a repellent? You should spray your shoes, socks, and pants with insect repellent. With any repellent, never apply more than a light spray and always wash your hands after applying. Products containing DEET can be applied to the skin, but those containing permethrin (Perma-none) should only be applied to clothing.

5.11 How should I check for ticks?

A. Carefully examine all areas of your skin (both covered and exposed) every 3 to 4 hours while in tick-infested areas in order to detect and remove ticks. Deer ticks and black-legged ticks are extremely small and in the nymphal (most infective) stage are smaller than a poppy seed. A nymph that has been attached to the skin for several hours looks like a small blood blister with legs. Check extremity joints, pressure points (where clothing presses on the skin), in/behind the ear, hairline, top of head, and navel. When you complete all outdoor activities for the day, go indoors and immediately disrobe. Throw your clothes in the washer and do a last "tick-check" of your body, double-checking the groin and underarm areas that you may have overlooked during the earlier checks, and take a shower.

B. Be aware that ticks may embed themselves in a vehicle's upholstery and then crawl onto unsuspecting occupants. ***When field work is concluded, all employees should conduct a thorough tick check.*** If possible, designated vehicles should be used for field work to avoid possible exposure to non-field personnel.

C. Be diligent about checking pets who have been outdoors as ticks can be carried indoors and dropped off inside.

5.12 What should I do if a tick bites me?

A. If you find a tick attached to your body, remove it carefully with fine tweezers by grasping the head of the tick as close as possible to the skin and pulling it straight out.

Never burn, squeeze, or apply oil to the tick as transmission of the disease may still result. After removal, wash your hands thoroughly and apply antiseptic to the bite.

B. Notify your project leader/supervisor and document the tick bite in your personal field log. Your project leader/supervisor must officially report tick bites using the U.S. Department of the Interior's [Safety Management Information System](#) (SMIS).

C. If you develop signs or symptoms of Lyme disease, contact your physician or local medical provider.

5.13 How is Lyme disease detected? Antibodies take anywhere from 2 to 6 weeks after infection to appear in the blood. Blood tests, called Lyme titers, are done to confirm the diagnosis. The Food and Drug Administration recently approved a new, more efficient test for detecting Lyme disease, "PreVueB. Burgdorferi Antibody Detection Assay." This test provides results in an hour at the point of care compared to the 10-daytime frame required for other tests.

5.14 How is Lyme disease treated? If Lyme disease is diagnosed, it is treatable. Individuals treated in the early stages of the disease with antibiotics usually recover rapidly and completely. Humans do not develop immunity, so reinfection is possible.

5.15 Do I have to pay for testing and treatment?

A. If you develop Lyme disease as a result of your work assignments, you are eligible to have all costs paid through the Office of Workers Compensation Program (OWCP). The burden of proof in establishing the work-relatedness of the disease is your responsibility. Contact your project leader/supervisor or your Regional OWCP Coordinator for further information.

B. If you are experiencing symptoms of Lyme disease and wish to see your physician or medical provider, ask your project leader or supervisor if the field station will pay for the testing. As these symptoms are similar to other illnesses, there is a good possibility that your test results will be negative, thus preventing payment through OWCP. Your Region may have a policy that permits the field station to pay for your testing if your results are negative.